

FORM PTO-1390 (Modified) (REV 11-2000)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER 32404	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 09/980292	
INTERNATIONAL APPLICATION NO. PCT/CH00/00234		INTERNATIONAL FILING DATE 27 April 2000		PRIORITY DATE CLAIMED 29 May 1999	
TITLE OF INVENTION WOVEN LABEL MADE FROM FUSIBLE THREAD MATERIAL					
APPLICANT(S) FOR DO/EO/US KUONI, Christian					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
<ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below. 4. <input type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c) (2)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3)) <ol style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)). 10. <input checked="" type="checkbox"/> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)). 11. <input checked="" type="checkbox"/> A copy of the International Preliminary Examination Report (PCT/IPEA/409). 12. <input checked="" type="checkbox"/> A copy of the International Search Report (PCT/ISA/210). <p>Items 13 to 20 below concern document(s) or information included:</p> <ol style="list-style-type: none"> 13. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98. 14. <input checked="" type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 15. <input checked="" type="checkbox"/> A FIRST preliminary amendment. 16. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 17. <input type="checkbox"/> A substitute specification. 18. <input type="checkbox"/> A change of power of attorney and/or address letter. 19. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825. 20. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4). 21. <input checked="" type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). 22. <input checked="" type="checkbox"/> Certificate of Mailing by Express Mail 23. <input checked="" type="checkbox"/> Other items or information: 					

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR 09/980292)	INTERNATIONAL APPLICATION NO. PCT/CH00/00234	ATTORNEY'S DOCKET NUMBER 32404
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24. The following fees are submitted:				CALCULATIONS PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :					
<input checked="" type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO				\$1040.00	
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO				\$890.00	
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO				\$740.00	
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4)				\$710.00	
<input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)				\$100.00	
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$1,040.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				\$0.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	7 - 20 =	0	x \$18.00	\$0.00	
Independent claims	1 - 3 =	0	x \$84.00	\$0.00	
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>				\$0.00	
TOTAL OF ABOVE CALCULATIONS =				\$1,040.00	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27). The fees indicated above are reduced by 1/2.				\$520.00	
SUBTOTAL =				\$520.00	
Processing fee of \$130.00 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30				\$0.00	
TOTAL NATIONAL FEE =				\$520.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). <input checked="" type="checkbox"/>				\$40.00	
TOTAL FEES ENCLOSED =				\$560.00	
				Amount to be refunded	\$
				charged	\$

- a. ☒ A check in the amount of **\$560.00** to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. **19-0522** A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Thomas H. Van Hoozer
HOVEY, WILLIAMS, TIMMONS & COLLINS



23589

PATENT TRADEMARK OFFICE

SIGNATURE

Thomas H. Van Hoozer

NAME

32,761

REGISTRATION NUMBER

November 29, 2001

DATE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

KUONI, Christian

U.S. National Phase Application of
International Application Serial No. :
PCT/CH00/00234

International Application Filed: April 27,
2000

WOVEN LABEL MADE FROM FUSIBLE
THREAD MATERIAL

Assistant Commissioner of Patents
Box PCT
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

Please enter the following preliminary amendment prior to examination of this application on the merits and computation of the fees:

ABSTRACT

Applicant submits herewith an abstract of the invention retyped on a separate page in conformance with U.S. practice. The abstract is taken from that appearing on the cover of the published international application.

SPECIFICATION

Please amend the specification to read as follows:

At page 1, line 3 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading: "Technical Field" and substitute therefore:

-- Background of the Invention

1. Field of the Invention -- .

At page 1, lines 4-5 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please amend the paragraph to read as follows:

-- The invention relates to a label made from fusible thread material with a ground fabric formed from ground warp threads. More particularly, it concerns such a label having nonfolded longitudinal sides and foldable narrow sides and with code weft threads which make an invisible bar code and, when observed in visible light, are essentially visually identical to the ground weft thread and can be distinguished therefrom when exposed to light outside the visible spectrum and which are tied to the ground fabric. --

At page 1, line 6, of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete "Prior Art" and substitute therefor:

-- 2. Description of the Prior Art --.

At page 3, line 24 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading "Presentation of the Invention" and substitute therefor:

-- Summary of the Invention -- .

At page 5, line 1 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading "Brief Description of the Drawings" and substitute therefor:

-- Brief Description of the Drawings --.

At page 6, line 1 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading "Ways of Implementing the Invention" and substitute therefor:

-- Description of the Preferred Embodiments --.

Please amend the paragraph beginning at line 9 of page 6 of the specification to read as follows:

-- The label 22 has, as is customary, a quadrangular shape with two nonfolded longitudinal sides 1 and two foldable transverse sides 2 which, according to the illustration, are designed as narrow sides. The label 22 consists of a ground fabric 11 made from ground warp threads 4 and ground weft threads 5 and a plurality of embroidery weft threads 12, which make a figure in a region 13 of the label, and a plurality of code weft threads 10, which in the region 13 made a code pattern in the form of a bar code with is "invisible" when observed in visible light and which is formed in each case by code strips 23 running in the warp direction and succeeding one another in the weft direction. -- .

CLAIMS

Please amend the claims as follows:

1. (Amended) A woven label made from fusible thread material, comprising:
a ground fabric formed from ground warp threads and ground weft threads, said ground fabric having nonfolded longitudinal sides and foldable narrow sides; and
code weft threads which make an invisible bar code and, when observed in visible light, are essentially visually identical to the ground weft threads and can be distinguished from the ground weft threads when exposed to radiation taking effect outside the visible range and which are tied in the ground fabric,
wherein the longitudinal sides are oriented transversely to the ground warp threads and the code weft threads run parallel to and at a distance from the longitudinal sides, said code weft threads floating below the ground fabric and being led onto the top side of the ground fabric in order to form a bar code.
2. (Amended) The label as claimed in claim 1, wherein the label has embroidery weft threads which form a figure and run parallel to and at a distance from the longitudinal sides, said embroidery weft threads floating below the ground fabric and being led upward to form the figure.
3. (Amended) The label as claimed in claim 1, wherein the ground fabric has margin regions and the floating code weft threads are removed in the margin regions of the narrow sides of the label.
4. (Amended) The label as claimed in claim 1, wherein the label has marginal regions folded on the narrow sides.

Please add the following new claims.

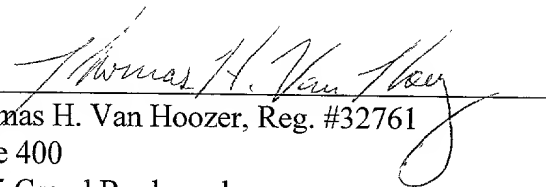
5. The label as claimed in claim 2, wherein the ground fabric has margin regions and the floating embroidery weft threads are removed in the margin regions of the narrow sides of the label.
6. The label as claimed in claim 2, wherein the label has marginal regions folded on the narrow sides.
7. The label as claimed in claim 3, wherein the label has marginal regions folded on the narrow sides.

REMARKS

Applicant submits herewith a Preliminary Amendment for entry prior to computation of the fee and examination of the application on the merits. Applicant believes the amendment submitted herewith conforms the application to U.S. practice and it is believed that the amendment to the claims place them in allowable form. No substantive change has been made to the claims, rather the amendments consist primarily of the elimination of multiple dependencies, the inclusion of antecedents, and the adoption of colloquial U.S. English and claim format. In view of the favorable International Preliminary Examination Report, early entry of the Notice of Allowance is courteously requested. Should the examiner have any questions which may be resolved by telephone conference, it is requested that the examiner contact applicant's attorney at 1-800-445-3460. Should this amendment necessitate any additional fees it may be charged to Deposit Account No. 19-0522.

Respectfully submitted,

HOVEY, WILLIAMS, TIMMONS & COLLINS

By 
Thomas H. Van Hoozer, Reg. #32761
Suite 400
2405 Grand Boulevard
Kansas City, Missouri 64108
(816) 474-9050

(Docket No. 32404)

U.S. National Phase Application of International Application
PCT/CH00/00234

International Filing Date: April 27, 2000

Title: WOVEN LABEL MADE FROM FUSIBLE THREAD MATERIAL

Applicant: KUONI, Christian

Attorney Docket No.: 32404

MARKED UP COPY OF PRELIMINARY AMENDMENT TO SHOW CHANGES MADE

Specification

Please amend the specification as follows:

At page 1, line 3 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading: "Technical Field" and substitute therefor:

- Background of the Invention
1. Field of the Invention -- .

At page 1, lines 4-5 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please amend the paragraph as follows:

-- The invention relates to a label [according to the preamble of claim 1] made from fusable thread material with a ground fabric formed from ground warp threads. More particularly, it concerns such a label having nonfolded longitudinal sides and foldable narrow sides and with code weft threads which make an invisible bar code and, when observed in visible light, are essentially visually identical to the ground weft thread and can be distinguished therefrom when exposed to light outside the visible spectrum and which are tied to the ground fabric. --

At page 1, line 6, of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete "Prior Art" and substitute therefor:

- 2. Description of the Prior Art --.

At page 3, line 24 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading "Presentation of the Invention" and substitute therefor:

- Summary of the Invention -- .

At page 5, line 1 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading "Brief Description of the Drawings" and substitute therefor:

- Brief Description of the Drawings --.

International Filing Date: April 27, 2000

Title: WOVEN LABEL MADE FROM FUSIBLE THREAD MATERIAL

Applicant: KUONI, Christian

Attorney Docket No.: 32404

Page 2

At page 6, line 1 of the Annex submitted to the International Preliminary Examination Authority on June 28, 2001, please delete the heading "Ways of Implementing the Invention" and substitute therefor:

-- Description of the Preferred Embodiments --.

Please amend the paragraph beginning at line 9 of page 6 of the specification as follows:

-- The label 22 has, as is customary, a quadrangular shape with two nonfolded longitudinal sides 1 and two foldable transverse sides 2 which, according to the illustration, are designed as narrow sides. The label 22 consists of a ground fabric 11 made from ground warp threads 4 and ground weft threads 5 and a plurality of embroidery weft threads 12, which make a figure in a region 13 of the label, and a plurality of code weft threads 10, which in the region 13 made a code pattern in the form of a bar code with is "invisible" when observed [invisible] in visible light and which is formed in each case by code strips 23 running in the warp direction and succeeding one another in the weft direction. -- .

Claims:

Please amend the claims as follows:

1. (Amended) A woven label made from fusible thread material, comprising:
[with] a ground fabric [(11)] formed from ground warp threads [(4)] and ground weft threads [(5)], said ground fabric having [containing] nonfolded longitudinal sides [(1)] and foldable narrow sides [(2)]; and [with]
code weft threads [(10)] which make an invisible bar code and, when observed in visible light, are essentially visually identical to the ground weft threads [(5)] and can be distinguished from the [latter] ground weft threads [in the light of] when exposed to radiation taking effect outside the visible range and which are tied in the ground fabric [(11)],
[characterized by the fact that] wherein the longitudinal sides [(1)] are oriented transversely to the ground warp threads [(4)] and the code weft threads [(10)] run parallel to and at a distance from the longitudinal sides [(1)], said code weft threads floating below the ground fabric [(11)] and being led onto the top side of the ground fabric in order to form a bar code.

U.S. National Phase Application of International Application
PCT/CH00/00234

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Attorney Docket No.: 32404

Page 2

2. (Amended) The label as claimed in claim 1, [characterized in that it] wherein the label has embroidery weft threads [(12)] which form a figure and run parallel to and at a distance from the longitudinal sides [(10)], said embroidery weft threads floating below the ground fabric and being led upward to form the figure.

3. (Amended) The label as claimed in claim 1 [or 2], [characterized in that] wherein the ground fabric has margin regions and the floating code weft threads are removed in the margin regions [(18)] of the narrow sides [(2)] of the label.

4. (Amended) The label as claimed in [one of claims 1 to 3, characterized in that it] claim 1, wherein the label has marginal regions [(18)] folded on the narrow sides [(2)].

Please add the following new claims.

5. The label as claimed in claim 2, wherein the ground fabric has margin regions and the floating embroidery weft threads are removed in the margin regions of the narrow sides of the label.

6. The label as claimed in claim 2, wherein the label has marginal regions folded on the narrow sides.

7. The label as claimed in claim 3, wherein the label has marginal regions folded on the narrow sides.

28-06-2001

CH000023

Woven label made from fusible thread material

Technical field

The invention relates to a label according to the
5 preamble of claim 1.

Prior art

A method for the production of said label is known from
EP-A-0 919 650, interconnected labels succeeding one
10 another in the warp direction, each with a figure made
by embroidery web threads and with a bar code made by
code web threads, being produced in a band with a
ground fabric consisting of ground warp threads and
ground weft threads. The labels each have a rectangular
15 shape with two longitudinal sides and two narrow sides,
the warp threads lying parallel to and the weft threads
transversely to the longitudinal sides of the label,
and the bar codes being formed by code strips in each
case running in the weft direction and consisting of
20 one or more parallel code weft threads. One
disadvantage is that the cut longitudinal sides have
rough edges which are detrimental to wearing comfort
and may cause injuries to persons and damage to the
wearing support.

25 EP-A-0 328 320 discloses a label in which the code
strips are formed from one or more parallel threads in
a similar way to EP-A-0 919 650. No further particulars
on the make-up of the fabric and of the code strips can
30 be gathered from EP-A-0 328 320.

The production of labels having usable cut longitudinal
sides is a problem which has existed for a long time.

- 2 -

In the first place, in principle, the labels are produced in such a way that the longitudinal edges are oriented parallel to the warp threads, so that the embroidery weft threads are relatively short and a stable formation of the label is obtained. If the label were oriented transversely to the warp threads, the embroidery weft threads would run over a greater length of the label, which would lead to a more unstable formation of the label, particularly in cases where the embroidery weft threads are led in a floating manner. A person skilled in the art therefore selects the arrangement of the labels from fundamental considerations in such a way that their longitudinal side runs in the warp direction and refrains from arranging the labels with their longitudinal sides transverse to the warp direction. If end folds are additionally provided on the narrow sides, each label consists of four plies in this region; this is unacceptable to the user and the wearer.

The person skilled in the art has made great endeavors, in many different directions, to make the longitudinal edges of the labels usable:

In WO 93 02246, an attempt is made to achieve this aim by shaping the undesirable fusion edges on the longitudinal sides of the labels in a noncutting manner by means of a pressing and/or vibrating tool.

In EP-A 0 389 793, it is expressly pointed out in column 1, lines 42 to 54, that experimentation at the fusion edges is useless. Instead, a complicated two-stage method for producing the labels is defined. In a first method stage, a semifinished product with cut longitudinal sides and a greater breadth is produced.

In a second method stage, the semifinished product is folded along the margin to the final breadth and the folded margins are adhesively bonded on the rear side, in order to obtain a soft label. This is therefore an
5 extremely complicated and costly method.

In EP-A-0 427 933 and, in a similar way, in DE-A 41 15 800, webs, produced on a broad weaving machine and lying next to one another, of labels lying
10 one behind the other in their longitudinal direction are produced. In order to avoid rough fusion brows, in a first method step the embroidery weft threads floating between adjacent webs are removed mechanically or thermally and the ground fabric is severed only in a
15 second method step. This is still not considered sufficient, however, since, according to EP-A-0 546 485, in a third method step the warp threads are also removed from the region of the ground fabric, so that fringed edges are obtained on the longitudinal
20 sides. This is likewise a complicated and costly method for the production of labels with soft edges on the longitudinal sides.

Presentation of the invention

25 The object of the invention is improvement of labels with an invisible bar code, so that such labels have soft longitudinal sides.

The advantages capable of being achieved by means of
30 the label according to the invention are to be seen essentially in that the longitudinal sides, remaining nonfolded, of the labels are produced with soft and skin-friendly cutting edges and, consequently, wearing comfort is appreciably improved, because the cut edges
35 made by the ground wefts have virtually no brows.

Moreover, such labels can be woven with a different length and breadth on the same type of weaving machine. The cut edges, occurring during the separation of the broad fabric, of the strips can be covered by the foldable narrow sides of the labels, with the result that the labels are further improved. The code weft threads can be inserted with a weft density selectable within wide limits and can be tied into the ground fabric in order to produce the invisible bar codes, while the code strips running in each case in the warp direction and succeeding one another in the weft direction are formed in each case, according to the desired code pattern, by one or more of the warp threads being tied off. Since the weft threads run parallel to the longitudinal sides of the labels, a uniform appearance is achieved over the entire length of each label, because the ground weft threads and also the embroidery weft threads and code weft threads cover the rear side uniformly.

Embodiments of the invention are specified in the dependent claims.

Labels with a weaving repeat can be woven in the broad fabric up to a weaving breadth of approximately 115 cm, so that only a small amount of waste occurs. The weft density in the ground fabric may be selected so that labels with simulated weaves, such as taffeta, half satin and satin, are produced on the same weaving machine. The embroidery weft threads and the code weft threads can be removed in the marginal region of the strips, so that the end folds become advantageously thin.

Brief description of the drawings

Exemplary embodiments of the invention are explained below by means of drawings in which:

- 5 figure 1 shows a three-dimensional illustration of a label;
- figure 2 shows a three-dimensional illustration of a modified version of the label according to the invention shown in figure 1;
- 10 figure 3 shows a section along the line III-III in figure 2 on a larger scale;
- 15 figure 4 shows a section along the line IV-IV in figure 2;
- figure 5 shows a section along the line V-IV in figure 2;
- 20 figure 6 shows side view of the label according to figure 2 with a) nonfolded and b) folded transverse sides;
- 25 figure 7 shows a side view of a modified version of the label according to figure 2, with a) nonfolded and b) folded transverse sides;
- 30 figure 8 shows a diagrammatic illustration of a method for the production of the labels according to the invention;
- figure 9 shows one application of the label according to the invention.
- 35

Ways of implementing the invention

Figure 1 shows a label 22 according to the invention, from the illustration of which the difference from the known labels in respect of warp direction and weft direction can be seen clearly and which is explained by the following description with reference to figures 2 to 5.

The label 22 has, as is customary, a quadrangular shape with two nonfolded longitudinal sides 1 and two foldable transverse sides 2 which, according to the illustration, are designed as narrow sides. The label 22 consists of a ground fabric 11 made from ground warp threads 4 and ground weft threads 5 and of a plurality of embroidery weft threads 12, which make a figure in a region 13 of the label, and of a plurality of code weft threads 10, which in the region 13 make a code pattern in the form of a bar code which is "invisible" when observed invisible light and which is formed in each case by code strips 23 running in the warp direction and succeeding one another in the weft direction.

The label 22 is woven in such a way that the ground warp threads 4 run transversely and the ground weft threads 5 parallel to the longitudinal sides of the label 22, a margin 14 of ground fabric 11 being present

22 can be folded on the transverse sides 2 in order to cover the fusion edge 15. The longitudinal sides 1 of the label 22 which are cut by a cutting device run through the ground fabric 11 and each have a cut edge 16 which, as already mentioned, is advantageously soft and skin-friendly.

Reference is made to figures 6 and 7. As fig. 6a shows, the label 22 consists of a ground fabric 11 and of a plurality of embroidery weft threads 12 and code weft threads 10 which make a figure or a bar code in the region 13 of the label 22 and which are tied off in a floating manner on the rear side of the label. According to fig. 6b, the label 22 is folded on the transverse sides 2. Fig. 7a shows a corresponding label, in which, in the region of the transverse sides 2, the floating embroidery weft threads 12 and code weft threads 10 are removed on the rear side, so that in each case a portion 18 of the ground fabric 11 is exposed. These portions 18 are folded according to fig. 7b, so that a very thin label is achieved.

The method for the production of labels is described below. As shown in fig. 8, to produce the labels, in a first step a broad fabric 21 consisting of fusible thread material is made, which has a number of labels 22 lying next to one another and which is woven continuously according to a repeat extending over the weaving breadth. It goes without saying that, as seen over the repeat breadth, each label can be designed differently. The broad fabric 21 is woven (fig. 5) by the woven fabric technique with ground warp threads 4 and ground weft threads 5 for a ground fabric 11 and also with a plurality of embroidery weft threads 12 for the figure and a plurality of code weft threads 10 for a bar code, the embroidery wefts and the code wefts being woven in in a region 13 of each label. In a second step, the broad fabric 21 is separated into a

set of strips 25 which contain labels 22 succeeding one another in the longitudinal direction of the strips and lying transversely. For separation, a thermal cutting device 26 is provided, which either is arranged on the weaving machine or is a separate device. If the broad fabric 21 is divided into strips 25, the strips 25 are wound up for further processing. If the broad fabric 21 is not divided into strips, the broad fabric 21 is wound onto a cloth beam (not illustrated). The strips 25 are, in terms of the labels, a semifinished product.

In a third step, the strips 25 may be folded in a folding device along their lateral margins formed by the fusion edges 15, the lengths of the labels 22 being determined and the transverse sides 2 of the labels being formed. At the same time as the folding, the folded portion is fixed, known methods being used. The folded strips 25 are separated by means of mechanical, thermal or ultrasonic devices 27, in such a way that the labels 22 are singled out, at the same time the breadth of the respective label 22 being determined and the cut edges 16 running through the ground fabric 11.

Fig. 9 shows the use of a label 22. The label 22 is stitched with the folded transverse sides 2 onto an article of clothing, so that the fusion edges 15 lie underneath the label 22 and the longitudinal sides 1 with the soft edges are exposed.

Patent claims

1. A woven label made from fusible thread material,
with a ground fabric (11) formed from ground warp
5 threads (4) and ground weft threads (5) and
containing nonfolded longitudinal sides (1) and
foldable narrow sides (2), and with code weft
threads (10) which make an invisible bar code and,
when observed in visible light, are essentially
10 visually identical to the ground weft thread (5)
and can be distinguished from the latter in the
light of radiation taking effect outside the
visible range and which are tied in the ground
fabric (11), characterized in that the
15 longitudinal sides (1) are oriented transversely
to the ground warp threads (4) and the code weft
threads (10) run parallel to and at a distance
from the longitudinal sides (1), said code weft
threads floating below the ground fabric (11) and
20 being led onto the top side of the ground fabric
in order to form a bar code.
2. The label as claimed in claim 1, characterized in
that it has embroidery weft threads (12) which
25 form a figure and run parallel to and at a
distance from the longitudinal sides (1), said
embroidery weft threads floating below the ground
fabric and being led upward to form the figure.
- 30 3. The label as claimed in claim 1 or 2,
characterized in that the floating weft threads
are removed in the margin regions (18) of the
narrow sides (2) of the label.

4. The label as claimed in one of claims 1 to 3, characterized in that it has marginal regions (18) folded on the narrow sides (2).

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Fig.1

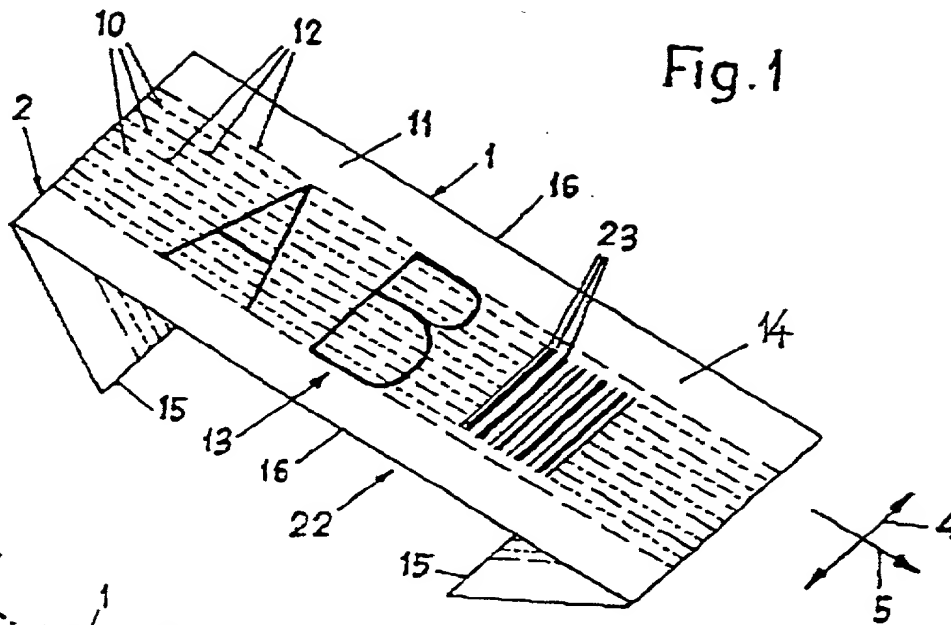


Fig.2

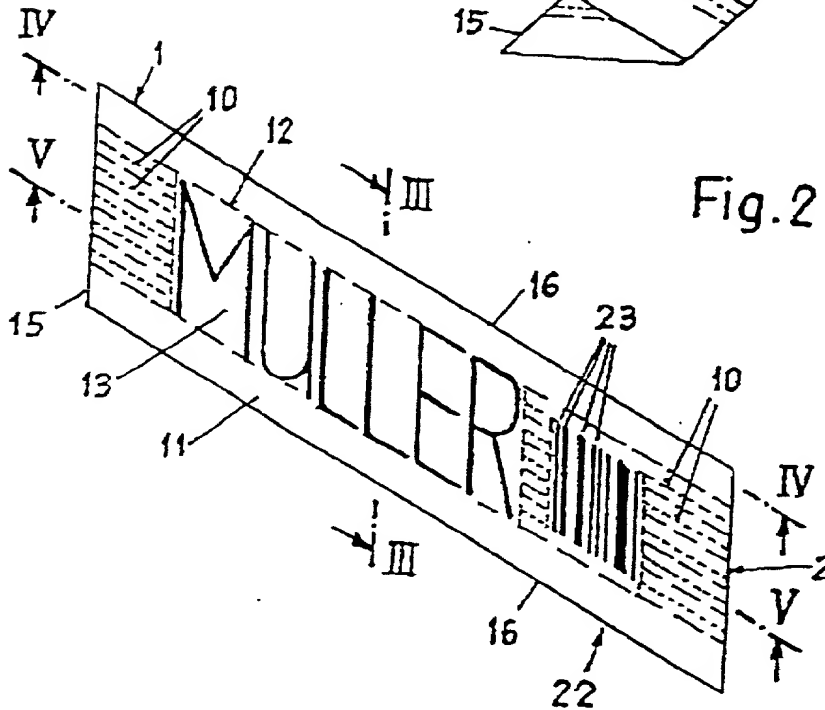
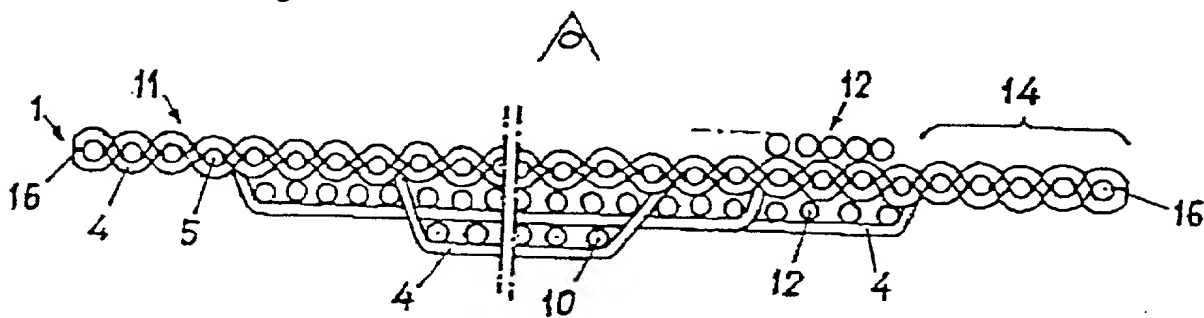


Fig.3



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Fig. 4

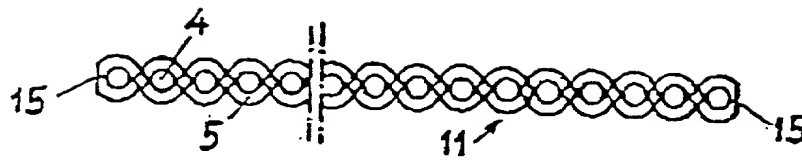


Fig. 5

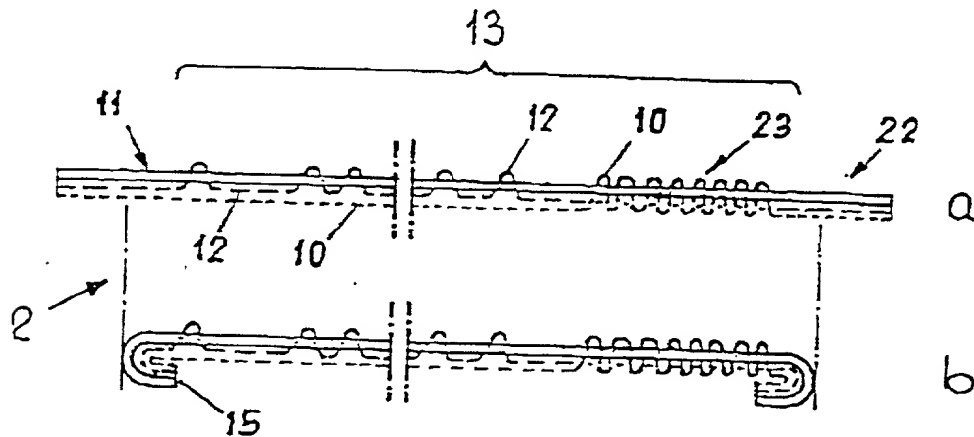
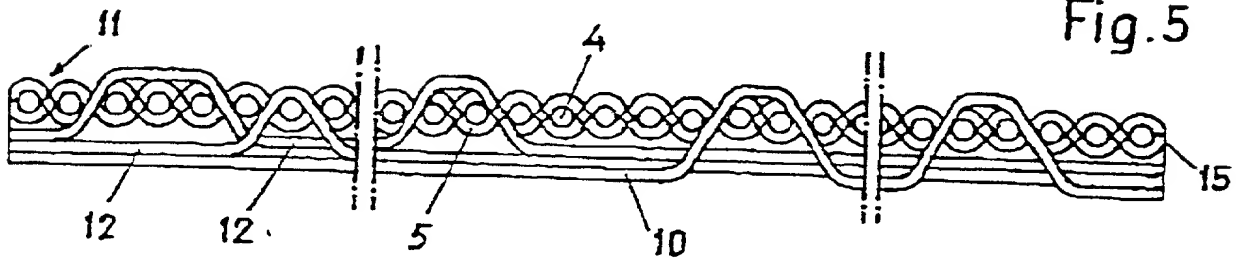


Fig. 6

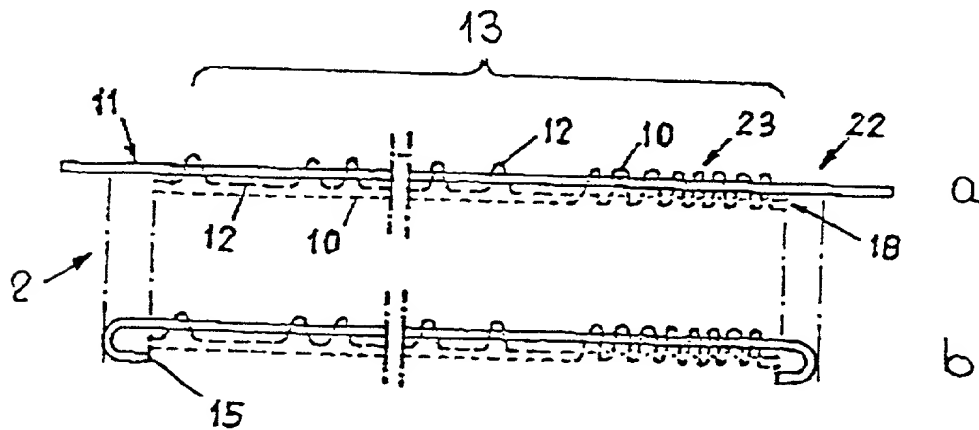


Fig. 7

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Fig. 8

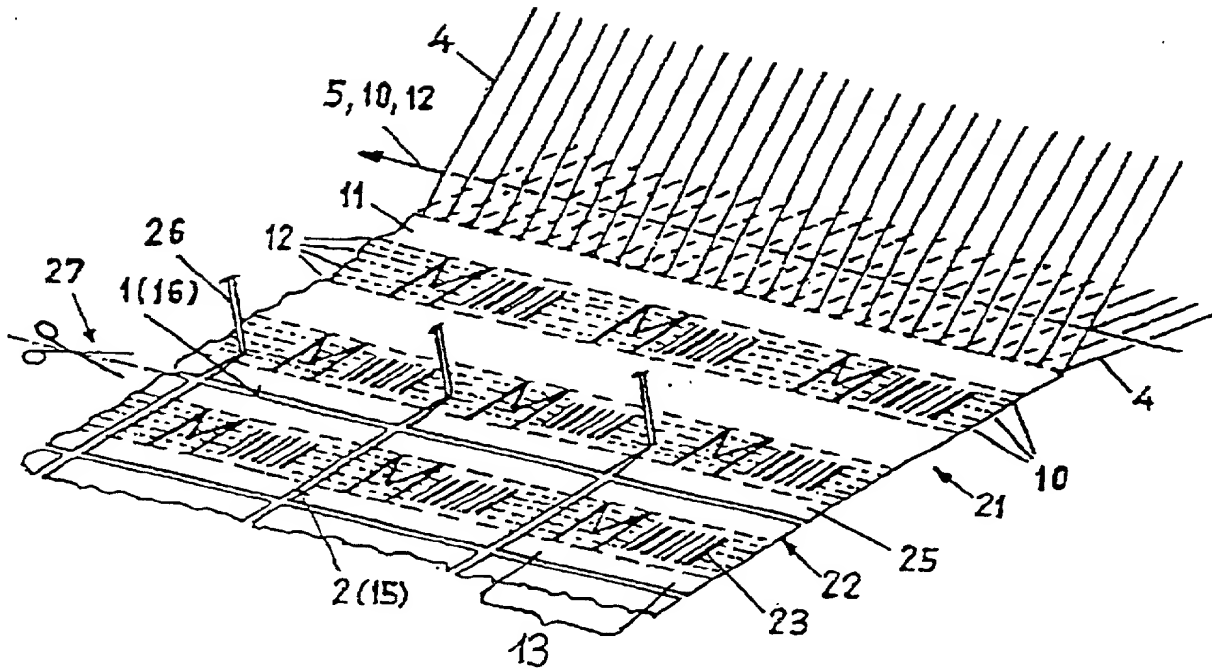
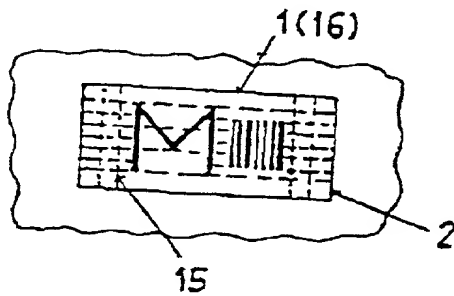


Fig. 9



P-6422-03

COMBINED DECLARATION AND POWER OF ATTORNEY
(Original, Design, National Stage of PCT
or CIP Application)

ATTORNEY'S DOCKET NO.
32404

As a below named inventor I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

WOVEN LABEL MADE FROM FUSIBLE THREAD MATERIAL

the specification of which: (complete (a), (b) or (c) for type of application)

REGULAR OR DESIGN APPLICATION

(a) ☐ is attached hereto.

(b) ☐ was filed on _____ as Application Serial No. _____
and was amended on _____ (if applicable).

PCT FILED APPLICATION ENTERING NATIONAL PHASE

(c) ☒ was described and claimed in International Application No. PCT/CH00/00234 filed 27 April 2000
and as amended on _____ (if any).

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56(a).

☐ In compliance with this duty there is attached an information disclosure statement. 37 CFR 1.97.

PRIORITY CLAIM

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:
(complete (d) or (e))

(d) ☐ no such applications have been filed.

(e) ☒ such applications have been filed as follows

EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS PRIOR TO SAID APPLICATION

Country	Application No.	Date of Filing	Date of Issue	Priority Claimed
CH	1011/99	29 May 1999		<input type="checkbox"/> YES <input type="checkbox"/> NO
				<input type="checkbox"/> YES <input type="checkbox"/> NO
				<input type="checkbox"/> YES <input type="checkbox"/> NO

ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS PRIOR TO SAID APPLICATION

PROVISIONAL

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States application(s) listed below:

Application Serial No.	Filing Date	Status (patented, pending, abandoned)
------------------------	-------------	---------------------------------------

CONTINUATION-IN-PART

(Complete This Part Only If This Is A Continuation-In-Part Application)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56(a), which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application:

Application Serial No.	Filing Date	Status (patented, pending, abandoned)
------------------------	-------------	---------------------------------------

POWER OF ATTORNEY

As a named inventor, I hereby appoint the following attorney(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Robert D. Hovey	19,223	Andrew G. Colombo	40,565
Warren N. Williams	19,156	Tracy Bornman	42,347
Stephen D. Timmons	26,513	Tracey S. Truitt	43,205
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Inventor's Signature			
Date	16th November 2001	Country of Citizenship	Switzerland